CCP Training
Comm 10 Used Oil

Application to Recycling Facilities

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Used oil regulatory history

- Pre-1989 – used oil regulations unclear
  - DILHR (fire) & DNR (environmental
  - Conflicting requirements
- May 1991 – all used oil storage in ILHR 10 (now Comm 10 – Fire & environmental)
  - Emphasis on collection and recycling
  - Trend to fuel supply for heating
- Used oil maintains significant public and regulatory concerns

Comm 10 regulated storage tanks

- Underground Storage Tanks (USTs) ≥ 60 gal.
  - Federally regulated USTs
- Aboveground Storage tanks (ASTs) ≥ 110 gal.
  - Commercial facility storage
  - Public collection storage
  - Supplying a waste oil burner
  - IBCs
- Containers < 110 gal. regulated by the fire codes

Used oil defined

"Used oil" or "waste oil" means any oil refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities; and means used cooking oils that are used as fuel for purposes such as space heating or fueling motor vehicles.

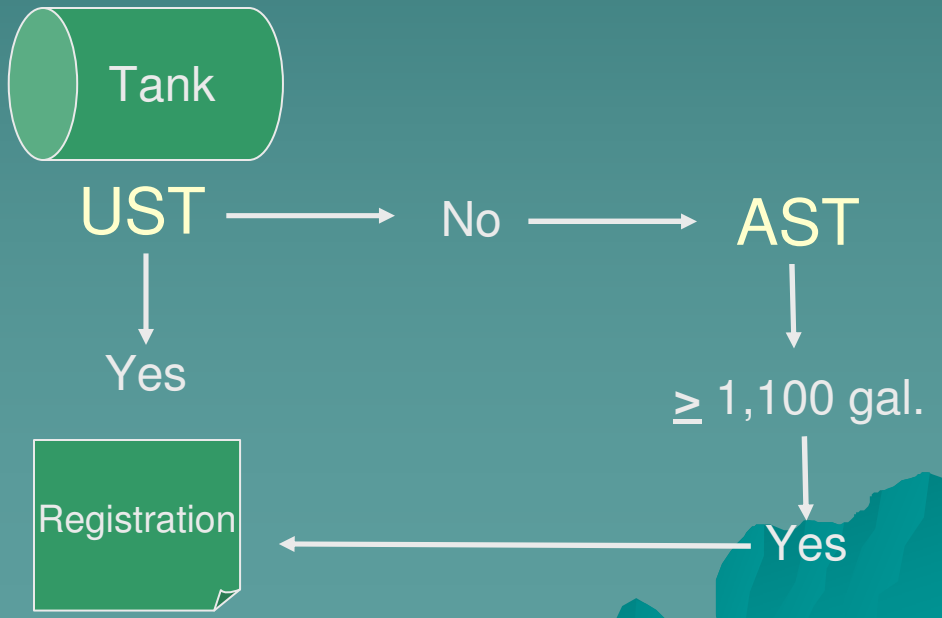
Includes any or synthetic or blend that contains a petroleum or mineral oil.

Administrative Requirements

- Plan review
- Tank registration
- UST permit
- Annual inspections

Used Oil Tank Registration

- All USTs
- All ASTs
- Exempt - ASTs < 1,100 for consumptive use on the premises (AST connected to a burner).



Technical Requirements

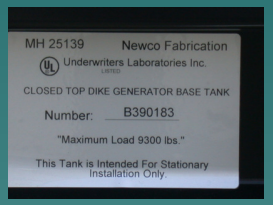
- Tank construction
- Tank Listing
- Tank venting (atmospheric & emergency venting)
- Spill & overfill prevention
  - Fill configuration
  - Product level
- Secondary containment
  - Outside – 125% of tank capacity
  - Inside – 100% of tank capacity
    - Possible room / building if no floor drain
- Setbacks (building, property line, other tanks, etc.)

Significant Comm 10 requirements that exceed CCP requirements

- Combustible classification of waste oil
- Storage construction and marking
- Plan approval and installation contractor certification
- Fill opening screened
- Fill opening closed
- Fill opening located directly at tank
- Tank setback / clearance distances
- Tank overfill prevention
- Tank spill protection – secondary containment
- Corrosion protection
- Signage
- Collision protection
- Tank closure (decommissioning) – soil testing

Used Oil Tank Listing

- Listing = UL, SWR, or API
- Marking = all of the following information permanently marked on the exterior of the tank by the manufacturer or the party responsible for tank erection:
  - (a) The name of the manufacturer or the party responsible for tank erection.
  - (b) The year of manufacture or construction.
  - (c) The standard under which the tank is manufactured or erected.
  - (d) The minimum rate of any required emergency venting



- Aboveground tanks for used-oil storage that have a capacity of less than 750 gallons are not required to be listed, or marked in accordance with s. Comm 10.250 (3), except for tanks which supply oil to an oil burner

Class IIIB Tank Setbacks

Tank capacity	From property line	From nearest building or public way	Between tanks	Inside tank from bldg wall
≤ 12,000	5	5	3	Depends 1′ – 3′

Reduced setback - request and approval in writing

ARCCP Compliance

Exceptions if participating in a cooperative compliance program approved by the department of natural resources

- Provided all of the following requirements are met:
- (a) The tank is constructed of a durable material acceptable to the department.
- (b) If located outside of a building, the tank has secondary containment acceptable to the department.
- (c) If located inside a building, the tank has venting and fire prevention features acceptable to the department.

Exemptions if ARCCP compliant :

- Class IIIB classification
- Tank design standards and listing
- Tank construction standard
- Installed by Certified contractor
- Fill configuration
- Tank setback from building
- Spill and overfill prevention
- Signage
- Collision protection
- Secondary containment
- Tank (AST) closure (removal) requirements

(c) If located inside a building, the tank has venting and fire prevention features acceptable to the department.

- Minimum UL 80 or equivalent construction
- Vent minimum size no smaller than fill opening

Venting is most frequent compliance issue

1. Atmospheric vent
2. Emergency vent

If ARCCP facility AST is not required to have closed fill configuration what purpose will an atmospheric or emergency vent serve?
Answer: Little to none if open fill point

(b) If located outside of a building, the tank has secondary containment acceptable to the department.

Remote impounding
- Exposures & obstacles
- Path & plume
- Collection
- Permeation

Dike Containment

IBCs
- Platforms
- Berms
- Pitched to sump

(a) The tank is constructed of a durable material acceptable to the department.

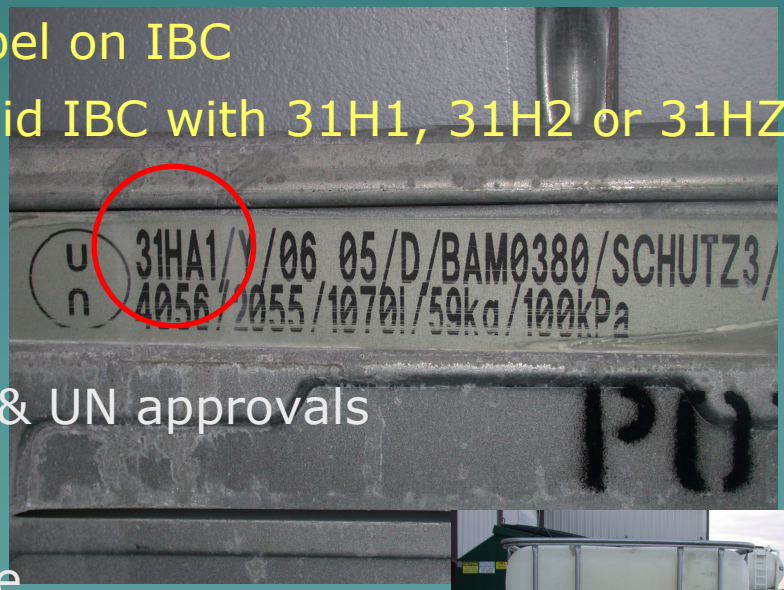
- ❖Has to be a manufactured container
- ❖Material has to be compatible with product stored
- ❖Tank has to have a top with a specific fill point

The argument against poly material:

- •Very few are listed for flammable or combustible liquids
- •Few are approved for storing hydrocarbons

Label on IBC

Rigid IBC with 31H1, 31H2 or 31HZ1



IBCs

- ➢Designed for transportation – DOT & UN approvals
  - ✓Vibration and drop tests
- ➢Not designed for long term storage
- ➢Some are intended for one-time use
- ➢Building & fire codes prohibit or restrict IBC storage
- ➢Must be re-tested and certified every 30 months

Combustible Construction Materials
Service Use

Service Temperature

- Polyvinyl Chloride (PVC) 120 - 270ºF

  Harvel Co.– "THE MAXIMUM SERVICE TEMPERATURE FOR PVC IS 140°F."

- Polyethylene 140ºF

KEFCO Co.:

- Linear polyethylene (HDLPE) storage tanks have a maximum storage temperature of 120 degrees F.
- Cross-linked polyethylene (XLPE) storage tanks have a maximum storage temperature of 130 degrees F.
- We do not recommend storing petroleum products in our tanks because they will permeate (soften) the tank walls. You will find that aromatic hydrocarbons and halogenated hydrocarbons will not be recommended for polyethylene.

Tote-A-Lube Poly Tanks:

- Class IIIB only
- Storage requirements must meet NFPA 30-21.4.1.2

Combustible tank storing Class IIIB liquids inside a building must be protected by an approved automatic fire-extinguishing system

Enforcement

- Published ARCCP Compliance Report
- Out-of-compliance facilities will fall under Comm 10 requirements
- Comm 10 ARCCP exclusions do not exclude facility from fire code related requirements.
  - Fire code compliance for non-tank issues are enforced by local fire inspector

Used / waste oil burning approval

* AST tank plan submittal included in burner plan approval – Div of Safety & Buildings or designated local authority
* UST tank plan submittal independent of burner plan submittal to – Div of Environmental & Regulatory Services or designated local authority (LPO)

Tank Connected to Heating Device

- Construction / design standards apply
- Tank must be Listed
- Tank must be vented to the outside
- Plan approval for heater & tank
- ARCCP exclusions do not apply


WASTE
OIL
COMBUSTIBLE WASTE OIL
NO SMOKING OR IGNITION
SOURCES ALLOWED


WASTE OIL


976-JEC


WASTE OIL

ARCCP Recap

- Inside storage
  - Metal tank
  - Tank must be registered with Commerce
  - Tank has adequate venting
  - Used oil burning – tank must be listed and plan submittal required

- Outside storage
  - Tank material must be compatible with the product stored
  - Secondary containment via a dike or remote impounding
  - Fixed storage tank must be registered with Commerce

Fire code vs. Tank code

- Fire code inspector and tank code inspector may not always maintain similar regulatory or fire safety concerns.
- Fire code inspector may take more liberal or tolerant attitude toward peripheral or management/housekeeping issues.
- Fire code inspector may not be knowledgeable in storage tank issues or regulations.
- Fire code and/or how it is enforced may be more restrictive.